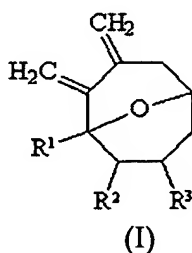


What is claimed is:

1. An 8-membered carbocyclic compound having diexomethylene groups which is represented by the following Chemical Formula 1:



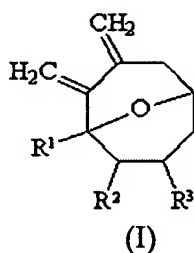
wherein R<sup>1</sup> is a phenyl group, and R<sup>2</sup> and R<sup>3</sup> is respectively a hydrogen atom, or R<sup>1</sup>, R<sup>2</sup> and R<sup>3</sup> may be connected with neighboring substituents to form a 5 to 10-membered aliphatic or aromatic ring.

2. The compound according to Claim 1, wherein R<sup>1</sup> is a phenyl group, and R<sup>2</sup> and R<sup>3</sup> is respectively a hydrogen atom.

3. The compound according to Claim 1, wherein R<sup>1</sup> and R<sup>2</sup> are connected with each other to form a 5 to 10-membered aliphatic or aromatic ring, and R<sup>3</sup> is a hydrogen atom.

4. The compound according to Claim 1, wherein R<sup>2</sup> and R<sup>3</sup> are connected with each other to form a 5 to 10-membered aliphatic or aromatic ring, and R<sup>1</sup> is a hydrogen atom.

5. A method of synthesizing the 8-membered carbocyclic compound having diexomethylene groups, represented by the following Chemical Formula 1, from a trimethylsilanylmethyl-allenol derivative by the intramolecular Prins cyclization in the presence of Lewis acid:



wherein R<sup>1</sup> is a phenyl group, and R<sup>2</sup> and R<sup>3</sup> is respectively a hydrogen atom, or R<sup>1</sup>, R<sup>2</sup> and R<sup>3</sup> may be connected with neighboring substituents to form a 5 to 10-membered aliphatic or aromatic ring.

6. The method according to Claim 5, wherein a solvent selected from the group consisting of diethyl ether, tetrahydrofuran, dichloromethane and chloroform is used as reaction solvent.

7. The method according to Claim 5, wherein said Lewis acid is trimethylsilyl trifluoromethanesulfonate (TMSOTf) and is used in 1.0 to 1.5 equivalent of said trimethylsilanylmethyl-allenol derivative.

8. The method according to Claim 5, wherein the reaction proceeds in the temperature range from -90°C to room temperature of 25°C.

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